intertek
caleb brett

LE No. 004

Report of Analysis

Diego Pantoja
Refineria Panama S.A.
Cativá, Bahía Las Minas
Refinería de Panama, Terminal de Combustibles
Colon, Panama

Laboratory Report ID : 3011648
Job No. : 2018-PANA-000276
Client Reference : N/A

Sample ID : 2018-PANA-000276-003
Product : ULSD
Sampling Point : VOPAK
Job Location : Bahía Las Minas
Representing : ***Shore Tank D-2129 / Composite Sample / After Discharge M.T " STENAWECO CATERINA CORRADO "***

Date Taken : 31-Mar-2018
Date Submitted : 01-Apr-2018
Date Tested : 01-Apr-2018
Drawn By : Intertek

Method	Test	Result	Units	Specification Limit
ASTM D4052	API Gravity @ 60°F	37.0	°API	Min 32.0
ASTM D1500	ASTM Color	<1		Max 2.5
ASTM D4176	Appearance	Bright & Clear		Bright & Clear
ASTM D2709	Water and Sediment	0	Vol %	Max 0.05
ASTM D2622	Sulfur Content	5.9	mg/kg	Max 15
ASTM D93	Procedure Used	A		
	Corrected Flash Point	67.0	°C	Min 60.0
ASTM D482	Ash	< 0.001	Wt %	Max 0.010
ASTM D189	Conradson Carbon Residue on 10% distillation residue	< 0.01	Wt %	Max 0.30
ASTM D130	Copper Corrosion @ 50ºC (122ºF)/3 hr	1a		Max 2
ASTM D445	Kinematic Viscosity 40 °C	2.615	cSt	1.9 - 4.1
ASTM D976	Cetane Index	49.0		Min 45.0
ASTM D6079	Wear Scar Diameter	390	µm	Max 520
EN 14078	Range	A		
	Fatty Acid Methyl Esters (FAME)	< 0.05	%(V/V)	Max 0.10
ASTM D2624	Electrical Conductivity	220	pS/M	Min 25
ASTM D86	10% Recovery	205.0	°C	Report
	50% Recovery	259.0	°C	Max 288
	90% Recovery	324.0	°C	282 - 338
	Final Boiling Point	351.0	°C	Report
	Residue	1.5	Vol %	Max 2

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Lote: 0418LDO020
Volumen Total: 178,096.43 BBLS.
Volumen Disponible: 158,446.43 BBLS.

Signed: Alsin Angelo Laboratory Manager

Date: 02-Apr-2018

Intertek Caleb Brett Panama, Inc.
Alsin Angelo, Laboratory Manager